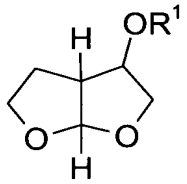
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (originally presented) A process for the preparation of compounds of formula (I)

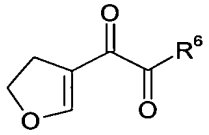


(I)

diastereoisomers, enantiomers, and mixtures thereof,

wherein R^1 is hydrogen, comprising:

a) treating a compound of formula (XII)



(XII)

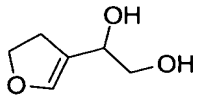
wherein:

R^6 is halogen, $-OR^7$, or $-NR^8R^9$;

R^7 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl;

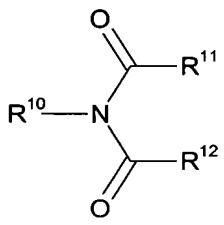
R^8 and R^9 are independently selected from hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl;

with a first reducing agent to form an alcohol of formula (III)



(III)

b) treating the alcohol with bromine, iodine, iodine monochloride, an N-fluoro bis sulfonamide or a compound of formula (XIII)



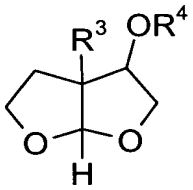
(XIII)

wherein:

R^{10} is chlorine, bromine, or iodine; and

R^{11} and R^{12} are independently selected from C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl, or R^{11} and R^{12} together with the atoms to which they are attached form a 5-8 membered ring;

to form a compound of formula (II)



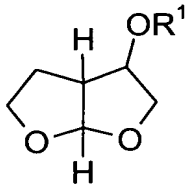
(II)

wherein R^3 is halogen, and R^4 is hydrogen; and

c) treating a compound of formula (II) with a second reducing agent to afford a compound of formula (I), wherein R^1 is hydrogen.

2. (originally presented) A process for the preparation of compounds of formula (I) according to claim 1, wherein said first reducing agent is selected from the group consisting of di-*iso*butylaluminum hydride (DIBAL), sodium borohydride, and lithium aluminum hydride, R^6 in the compound of formula (XII) is $-OR^7$ wherein R^7 is C_{1-6}alkyl, the compound of formula (XIII) is N-bromosuccinimide, and the second reducing agent is palladium on carbon in combination with hydrogen.

3. (originally presented) A process for the preparation of compounds of formula (I)

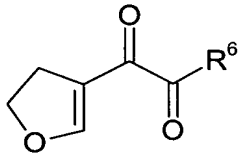


(I)

diastereoisomers, enantiomers, and mixtures thereof,

wherein R^1 is $-C(O)R^2$; and R^2 is C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl, comprising:

a) treating a compound of formula (XII)



(XII)

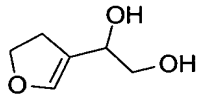
wherein:

R^6 is halogen, $-OR^7$, or $-NR^8R^9$;

R^7 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl; and

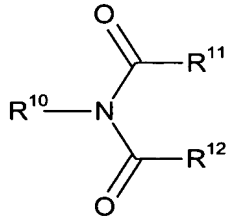
R^8 and R^9 are independently selected from hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl;

with a first reducing agent to form an alcohol of formula (III)



(III)

b) treating the alcohol with bromine, iodine, iodine monochloride, an N-fluoro bis sulfonamide or a compound of formula (XIII)



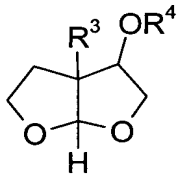
(XIII)

wherein:

R^{10} is chlorine, bromine, or iodine; and

R^{11} and R^{12} are independently selected from C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl, or R^{11} and R^{12} together with the atoms to which they are attached form a 5-8 membered ring;

to form a compound of formula (II)



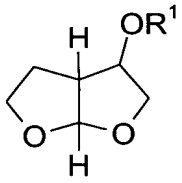
(II)

wherein R^3 is halogen, and R^4 is hydrogen;

c) treating a compound of formula (II) with a second reducing agent to afford a compound of formula (I), wherein R^1 is hydrogen; and

d) resolving to form a compound of formula (I), wherein R^1 is $-C(O)R^2$ and R^2 is C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl.

4. (originally presented) A process for the preparation of compounds of formula (I)

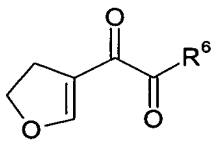


(I)

diastereoisomers, enantiomers, and mixtures thereof,

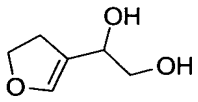
wherein R^1 is hydrogen or $-C(O)R^2$ wherein R^2 is C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl,

comprising reducing a compound of formula (XII)



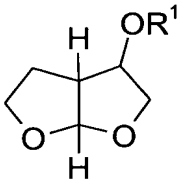
(XII)

to afford an alcohol of formula III



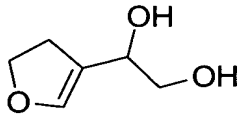
(III).

5. (originally presented) A process for the preparation of compounds of formula (I)



wherein R^1 is hydrogen,

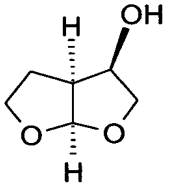
comprising treating a compound of formula (III)



(III)

with an acid selected from the group consisting of hydrochloric acid, hydrobromic acid, hydroiodic acid, acetic acid, sulfuric acid, and sulfonic acid.

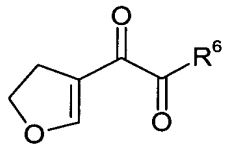
6. (originally presented) A process for the preparation of a compound of formula (V)



(V)

substantially free from other diastereoisomers, comprising:

a) treating a compound of formula (XII)



(XII)

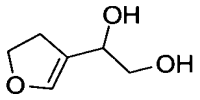
wherein:

R^6 is halogen, $-OR^7$, or $-NR^8R^9$;

R^7 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl; and

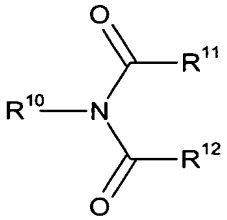
R^8 and R^9 are independently selected from hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl;

with a first reducing agent to form an alcohol of formula (III)



(III)

b) treating the alcohol with bromine, iodine, iodine monochloride, an N-fluoro bis sulfonamide or a compound of formula (XIII)



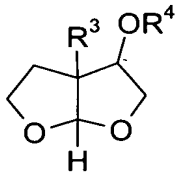
(XIII)

wherein:

R^{10} is chlorine, bromine, or iodine; and

R^{11} and R^{12} are independently selected from C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl, or R^{11} and R^{12} together with the atoms to which they are attached form a 5-8 membered ring;

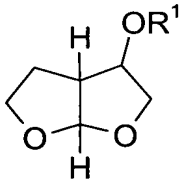
to form a compound of formula (II)



(II)

wherein R^3 is halogen and R^4 is hydrogen;

c) treating a compound of formula (II) with a second reducing agent to afford a compound of formula (I)

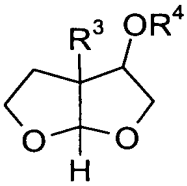


(I)

wherein R^1 is hydrogen; and

d) resolving to form a compound of formula (I), wherein R^1 is hydrogen or $-C(O)R^2$ and R^2 is C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl.

7. (originally presented)A compound of formula (II)



(II)

wherein:
R^3 is halogen;

R^4 is hydrogen or $-C(O)R^5$;

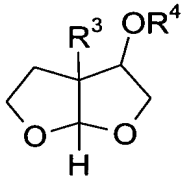
R^5 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl; and diastereoisomers, enantiomers, and mixtures thereof.

8. (originally presented) A compound of formula (II) according to claim 7 wherein R^3 is bromine and R^4 is hydrogen.

9. (originally presented) A compound of formula (II) according to claim 7 wherein R^3 is bromine, R^4 is $-C(O)R^5$ and R^5 is C_{1-6}alkyl.

10. (originally presented) A compound of formula (II) according to claim 7 wherein R^3 is bromine, R^4 is $-C(O)R^5$, and R^5 is $-CH_3$.

11. (originally presented) A process for the preparation of compounds of formula (II)



(II)

wherein:

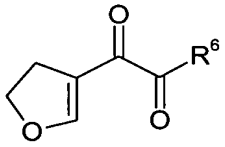
R^3 is halogen;

R^4 is hydrogen or $-C(O)R^5$;

R^5 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl; and

diastereoisomers, enantiomers, and mixtures thereof, comprising:

a) treating a compound of formula (XII)



(XII)

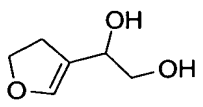
wherein:

R^6 is halogen, $-OR^7$, or $-NR^8R^9$;

R^7 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl; and

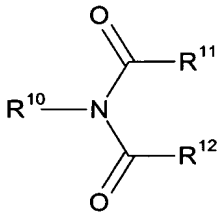
R^8 and R^9 are independently selected from hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl;

with a reducing agent to form an alcohol of formula (III)



(III)

a) treating said alcohol with bromine, iodine, iodine monochloride, an N-fluoro bis sulfonamide or a compound of formula (XIII)



(XIII)

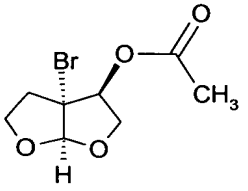
wherein:

R^{10} is chlorine, bromine, or iodine; and

R^{11} and R^{12} are independently selected from C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl, or R^{11} and R^{12} together with the atoms to which they are attached form a 5-8 membered ring; to form a compound of formula (II), wherein R^3 is halogen and R^4 is hydrogen; and

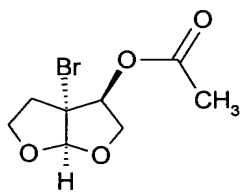
c) resolving to yield a compound of formula (II) wherein R^3 is halogen; R^4 is hydrogen or –$C(O)R^5$; and R^5 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl.

12. (originally presented) A compound of formula (XIX)



(XIX)

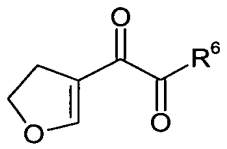
13. (originally presented) A process for the preparation of a compound of formula (XIX)



(XIX)

comprising:

a) treating a compound of formula (XII)



(XII)

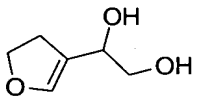
wherein:

R^6 is halogen, $-OR^7$, or $-NR^8R^9$;

R^7 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl; and

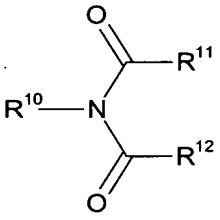
R^8 and R^9 are independently selected from hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl;

with a reducing agent to form an alcohol of formula (III)



(III)

b) treating said alcohol with bromine, iodine, iodine monochloride, an N-fluoro bis sulfonamide or a compound of formula (XIII)



(XIII)

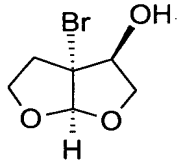
wherein:

R^{10} is chlorine, bromine, or iodine; and

R^{11} and R^{12} are independently selected from C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl, or R^{11} and R^{12} together with the atoms to which they are attached form a 5-8 membered ring; and

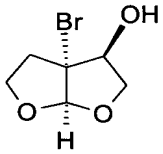
c) optionally resolving to yield a compound of formula (XIX).

14. (originally presented) A compound of formula (XX)



(XX) .

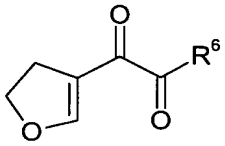
15. (originally presented) A process for the preparation of a compound of formula (XX)



(XX)

comprising:

a) treating a compound of formula (XII)



(XII)

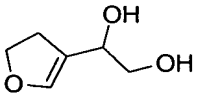
wherein:

R^6 is halogen, -OR^7, or –NR^8R^9;

R^7 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl; and

R^8 and R^9 are independently selected from hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl;

with a reducing agent to form an alcohol of formula (III)

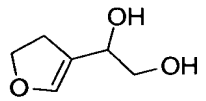


(III)

b) treating said alcohol with N-bromosuccinimide to form a compound of formula (XX); and

c) optionally resolving to yield diastereoisomers of compounds of formula (XX).

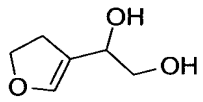
16. (originally presented) A compound of formula (III)



(III) .

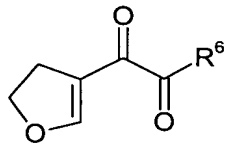
17. (originally presented) 1-(4,5-dihydrofuran-3-yl)ethane-1,2-diol.

18. (originally presented) A process for the preparation of compound (III)



(III)

comprising treating a compound of formula (XII)



(XII)

wherein R^6 is halogen, $-OR^7$, or $-NR^8R^9$; where R^7 is hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, or C_{6-14}arylC_{1-6}alkyl; and R^8 and R^9 are independently selected from hydrogen, C_{1-6}alkyl, C_{3-8}cycloalkyl, C_{6-14}aryl, and C_{6-14}arylC_{1-6}alkyl; with a reducing agent.

19. (originally presented) A process according to claim 18 wherein the reducing agent is selected from the group consisting of di-*iso*butylaluminium hydride (DIBAL), sodium borohydride, and lithium aluminum hydride.

20. (currently amended) A process for the preparation of compounds of formula I ~~, II, V, XIV, XIX, and XX,~~ according to ~~any of claims 1, 3, 4, 6, 11, 13, or 15~~ claim 1 wherein the first reducing agent is selected from the group consisting of di-*iso*butylaluminium hydride (DIBAL), sodium borohydride, and lithium aluminum hydride, wherein R^6 in the compound of formula (XII) is $-OR^7$ where R^7 is C_{1-6}alkyl, wherein the compound of formula (XIII) is N-bromosuccinimide, and the second reducing agent is palladium on carbon in combination with hydrogen.

21. (currently amended) A process according to ~~any of claims 1, 2, 3, or 4~~ claim 1 further comprising the step of resolving to obtain single enantiomers.

22. (new) A process for the preparation of compounds of formula I ~~, II , V, XIV, XIX, and XX,~~ according ~~to any of claims 1, 3, 4, 6, 11, 13, or 15~~ to claim 3 wherein the first reducing agent is selected from the group consisting of di-*iso*butylaluminium hydride (DIBAL), sodium borohydride, and lithium aluminum hydride, wherein R^6 in the compound of formula (XII) is $-OR^7$ where R^7 is C_{1-6}alkyl, wherein the compound of formula (XIII) is N-bromosuccinimide, and the second reducing agent is palladium on carbon in combination with hydrogen.

23. (new) A process for the preparation of compounds of formula ~~I, II,~~ V ~~, XIV , XIX, and XX,~~ according to ~~any of claims 1, 3, 4, 6, 11, 13, or 15~~ claim 6 wherein the first reducing agent is selected from the group consisting of di-*iso*butylaluminium hydride (DIBAL), sodium borohydride, and lithium aluminum hydride, wherein R^6 in the compound of formula (XII) is $-OR^7$ where R^7 is C_{1-6}alkyl, wherein the compound of formula (XIII) is N-bromosuccinimide, and the second reducing agent is palladium on carbon in combination with hydrogen.

24. (new) A process for the preparation of compounds of formula ~~I,~~ II ~~, V, XIV, XIX , and XX,~~ according to ~~any of claims 1, 3, 4, 6, 11, 13, or 15~~ claim 11 wherein the first reducing agent is selected from the group consisting of di-*iso*butylaluminium hydride (DIBAL),

sodium borohydride, and lithium aluminum hydride, wherein R^6 in the compound of formula (XII) is $-OR^7$ where R^7 is C_{1-6}alkyl, wherein the compound of formula (XIII) is N-bromosuccinimide, and the second reducing agent is palladium on carbon in combination with hydrogen.

25. (new) A process for the preparation of compounds of formula ~~I, II, V, XIV,~~ XIX ~~, and XX,~~ according to ~~any of claims 1, 3, 4, 6, 11, 13, or 15~~ claim 13 wherein the first reducing agent is selected from the group consisting of di-*iso*butylaluminium hydride (DIBAL), sodium borohydride, and lithium aluminum hydride, wherein R^6 in the compound of formula (XII) is $-OR^7$ where R^7 is C_{1-6}alkyl, wherein the compound of formula (XIII) is N-bromosuccinimide, and the second reducing agent is palladium on carbon in combination with hydrogen.

26. (new) A process for the preparation of compounds of formula ~~I, II, V, XIV, XIX, and~~ XX, according to ~~any of claims 1, 3, 4, 6, 11, 13, or 15~~ claim 15 wherein the first reducing agent is selected from the group consisting of di-*iso*butylaluminium hydride (DIBAL), sodium borohydride, and lithium aluminum hydride, wherein R^6 in the compound of formula (XII) is $-OR^7$ where R^7 is C_{1-6}alkyl, wherein the compound of formula (XIII) is N-bromosuccinimide, and the second reducing agent is palladium on carbon in combination with hydrogen.

27. (new) A process according to ~~any of claims 1, 2, 3, or 4~~ claim 2 further comprising the step of resolving to obtain single enantiomers.

28. (new) A process according to ~~any of claims 1, 2, 3, or 4~~ claim 3 further comprising the step of resolving to obtain single enantiomers.

29. (new) A process according to ~~any of claims 1, 2, 3, or 4~~ claim 4 further comprising the step of resolving to obtain single enantiomers.